

**Amendment to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claims 1-10 (canceled).

Claim 11 (previously presented): A method of producing high density arrays of target substances comprising sectioning a bundle of target-strands that has been stabilized by embedding the bundle in a matrix;

where the target-strands comprise the target substances;

where the location of each target substance within the bundle is noted in a database;

and,

where the sectioning results in a high density array.

Claim 12 (original): The method of claim 11, where the sectioning is performed with a cutting device selected from the group consisting of a microtome, laser, saw, and hot wire.

Claim 13 (previously presented): The method of claim 11, where the bundle sectioned comprises a target-strand selected from the group consisting of a cast rod of target substance, a target substance absorbed onto a glass fiber, a target substance absorbed onto a silk thread, a target substance attached to a polymer fiber, a target substance embedded in a porous rod, a target substance coated on a metal wire, a target substance contained within a matrix of gelatin, a line of a target substance drawn on a glass slide, a line of a target substance drawn on a membrane, and a target substance attached to the inside of a tube.

Claim 14 (original): The method of claim 11, where at least one of the target substances comprising the sectioned bundle of target-strands is selected from the group consisting of DNA, RNA, peptides, proteins, glycoproteins, lipoproteins, carbohydrates, lipids and immunoglobulins.

Claim 15 (previously presented): The method of claim 11, where the sectioning is performed such that the resultant high density array has a thickness of from about 0.1  $\mu\text{m}$  to about 1.0 mm.

Claim 16 (original) The method of claim 11, where the sectioning is performed such that the resultant high density array has a thickness of greater than 50  $\mu\text{m}$ .

Claim 17 (canceled).

Claim 18 (previously presented): The method of claim 11, where the matrix is selected from the group consisting of epoxy, polypropylene and polystyrene.

Claim 19 (original): The method of claim 11, further including incorporating a material other than the target-strands into the bundle.

Claim 20 (canceled).

Claim 21 (withdrawn): The method of claim 11, where at least one of the target substances comprising the sectioned bundle of target-strands is selected from the group consisting of zinc, sulfur and gold.

Claim 22 (withdrawn): The method of claim 11, where at least one of the target substances comprising the sectioned bundle of target-strands is selected from the group consisting of viruses, chromosomes, mitochondria, prokaryotic cells, archaeobacteria and eukaryotic cells.

Claim 23 (withdrawn): The method of claim 11, where at least one of the target substances comprising the sectioned bundle of target-strands is selected from the group consisting of ceramics, glasses, plastics, polymeric materials, wood, fabric and concrete.

Claim 24 (withdrawn): The method of claim 11, where at least one of the target substances comprising the sectioned bundle of target-strands is selected from the group consisting of semiconductors and superconductors

Claims 25-27 (canceled).

Claim 28 (previously presented): The method of claim 19, where the material is a secondary enzyme.

Claims 29-34 (canceled).

Claim 35 (withdrawn): The method of claim 19, where the material is a microbial inhibitor.

Claim 36 (withdrawn): The method of claim 19, where the material is an antioxidant.

Claim 37 (withdrawn): The method of claim 19, where the material is a nonfluorescent counterstain.

Claim 38 (withdrawn): The method of claim 19, where the material is a reflecting substance.